

'Eugenics is the science which deals with all influences that improve the inborn qualities of a race; also with those that develop them to the utmost advantage.'—SIR FRANCIS GALTON (1904)

The Eugenics Review

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NOTES OF THE QUARTER

FACTORS IN HUMAN ABILITY

FOLLOWING ITS SUCCESSFUL SYMPOSIUM in 1964 on BIOLOGICAL ASPECTS OF SOCIAL PROBLEMS, the Eugenics Society is organizing a two-day conference to be held on Thursday and Friday, 30th September and 1st October 1965 at the Botany Lecture Theatre, University College London, Gower Street, London, W.C.1. The subject will be GENETIC AND ENVIRONMENTAL FACTORS IN HUMAN ABILITY.

The Symposium will consist of four sessions: on 30th September the proceedings will open with a General Introduction by Sir Robert Platt, President of the Eugenics Society, who will take the Chair at the first session on *The Nature and Meaning of Intelligence Tests*; the speakers will include Dr. B. Bernstein, Professor Hilde Himmelweit, Dr. D. A. Pidgeon and Professor P. E. Vernon.

The subject of the afternoon session will be *Selection for Higher Education* under the Chairmanship of Lord Robbins. The speakers will be Professor J. Drever, Mrs. Jean Floud, Dr. L. Hudson and Professor S. Wiseman.

On Friday, 1st October, Professor Jack Tizard will take the Chair at the morning session on *Aspects of Subnormality*. Dr. Valerie Cowie, Professor Charles Dent, Dr. A. Kushlik and Professor James Walker will speak.

In the afternoon the subject for discussion will be *Differential Fertility and Intelligence* under

the Chairmanship of Dr. J. A. Fraser Roberts; papers will be presented by Dr. B. Benjamin, Dr. C. O. Carter, Dr. D. S. Falconer and Mr. R. M. C. Huntley.

Admission is free but by ticket for which application should be made to the General Secretary of the Eugenics Society.

CENSUS PROGRESS AND DIFFICULTIES

AS READERS OF THE REVIEW have already been informed (page 1 of the April 1964 issue), a new Census is to be held in Britain next year. It will be wholly on a 10 per cent sample basis. It is now known for certain that questions on fertility will not be included.

The difficulties liable to be experienced with sample enumerations are illustrated by an article in the *Sunday Times* on 21st March, which disclosed that the portion of the 1961 Census that was conducted on a sample basis had been found, on an analysis of the results, to be biased. In consequence, it will take longer to prepare the published reports on the subjects so investigated, because it will be necessary to make some laborious corrections to the data. (Although an electronic computer is in daily use, this will not help to speed up the process of correction, because it is already fully occupied and in any event to programme the computer for this purpose would take a considerable time).

According to the *Sunday Times* article, the probable reason for the bias in the sample portion of the 1961 Census is enumerator error. Although the enumerators were each

given a pile of forms to hand out in a given order, and the special sample sheets were properly interleaved at decennial intervals, it is alleged that pity may have occasionally been taken on "illiterates, lonely widows and harassed mums" and the sheets given to their neighbours instead. The result was that, when the answers to some of the questions were cross-checked with those given to similar questions in the complete part of the censal inquiry, discrepancies were disclosed and these were too large to have been likely to arise from chance. For instance, the sample was found to be about 10 per cent short of one-person households and very large households, while middle-sized families were over-represented.

This bias does not affect the figures for social class and household size quoted on page 93 of this issue of the REVIEW, which are founded on the complete part of the enumeration. Although the tentative analysis of the probable course of differential fertility discussed on that page is rather inconclusive, it is timely because publication of the more direct results from the sample section of the 1961 Census will now be further delayed, probably until the end of 1965, and moreover those results can no longer be entirely free from suspicion.

Whatever troubles may be experienced with the 1966 Census, they will at least be of a different character from those described above, because the addresses of the persons to be enumerated will be selected from a comprehensive list of buildings, and the enumerators will be instructed to go to these addresses and these alone. That they have done so can be verified. The procedure has already been tested on a dummy run with satisfactory results. It will be very important to establish the best way of making accurate and representative sample censuses, as in this way more detailed social research can be carried out. By 1971, the Registrar General will owe to the nation a new analysis of fertility, and it has been officially stated in Parliament (18th March) that a repetition of the 1961 questions will be considered for that year. If any doubts are left about the 1961 data it will be absolutely essential to establish the trustworthiness of the 1971 figures.

NEW METHODS OF FERTILITY ANALYSIS

DEMOGRAPHERS ARE TURNING more and more towards the employment of electronic computers in their work, and are finding new variety in the tasks that they can usefully perform with the aid of these machines. In the first instance, the economic value of computers in simplifying and speeding up the processing of census and registration data attracted the most attention, and much was quickly achieved in this sphere. It is but a short step to include in the programme a few simple calculation routines such as the assessment of mortality and fertility rates, and of proportions married. The next stage has been to give over to computers the task of carrying out some more complex forms of arithmetical operation such as population projections; in this work, the potentialities of the machines for rapidly producing a large number of alternative answers are especially valuable. It is also possible to attempt much more sweeping surveys than before; for instance certain types of calculation can be made for a much larger number of countries or areas than would otherwise have been practicable.

A further stage has now begun with the use of Monte Carlo methods in the formation of "simulation models". In this type of stochastic exercise, attention is paid to individuals rather than to the groupings used in standard population projections. In a population exposed to the risks of marriage, fertility and mortality, the future holds many possibilities for each member. A simulation model uses given distributions of these possible events, applies them in respect of each person and then combines the results in the form of a number of possible outcomes for the population as a whole. The distribution of these outcomes for the whole population is less variable than it is for the individual members, but its characteristics may be of importance and would not be revealed by standard projection methods based on groupings. The amount of arithmetic involved is enormous, but can be carried out very quickly at computer speeds.

An example of a simulation study applied to the biological processes of uncontrolled fertility has recently been published by Professor Hannes

Hyrenius, of the Demographic Institute at the University of Göteborg.* The elements in his model consisted mainly of fecundability (or the probability of conception), sterility (temporary and permanent), the distribution of pregnancies by duration, and the age of menopause. For most of these elements there are no scientifically-measured statistics; if there were, however, there would be little point in this particular model exercise, because its purpose was to test certain hypotheses about the nature of the measurements of these elements. Thus, Professor Hyrenius used various possible constant values for fecundability, and later he may assume that it varies by age.

The electronic computer was programmed to work out the fertility history of a group of married women exposed to the varying chances described in the preceding paragraph, taking into account the distribution of all the possibilities for each one and then combining the results. The history was expressed in terms of an outcome for which data were available, namely age-specific fertility rates. As is not surprising, Professor Hyrenius's first combination of theoretical possibilities did not produce results that were in close accord with reality; but he was quickly able to repeat the simulation experiment with a different assumed input, and in this way to find combinations of hypotheses that looked more plausible. The experiment continues and becomes more ambitious. There are obvious possibilities for a similar use of electronic computers in population genetics.

THE FERTILITY OF THE SUCCESSFUL

THE DATA SUPPLIED BY the successful in life about themselves for the purpose of compiling *Who's Who* have been analysed from time to time in order to carry out social studies of various kinds. Indeed, the Eugenics Society used the British edition a few years ago so as to select a sample of such persons and find what they thought about *Eugenics*.† In recent years, however, the American edition seems to have

attracted the more attention. In 1927, Huntington and Whitney carried out a survey, and in 1956 Kirk examined the fertility of a sample of one in every fifteen of the 50,000 or more men listed in the then current edition of this volume. Kirk found that these men had about enough children to replace themselves; they had in the past had a fertility rate below the national level, but more recently the difference had narrowed progressively. Those with an inherited status had more children than those who were "self-made".

The standard of selection for *Who's Who* remains reasonably uniform over the years, and the information given by the respondents may be expected to be accurate—otherwise their acquaintances could easily see where they had departed from the truth. A disadvantage is that the respondents have a free choice of the types of items on which they supply information. They might, for instance, refer only to their children currently living and omit those who had died in the past. The material is, however, of sufficient interest to make longitudinal analyses worth while at suitable intervals. Recently Grant and Kiser have drawn on a survey made in 1948 and on some new analyses in order to examine the changes over fifteen years in the social and demographic characteristics of United States women in *Who's Who*, of whom there are about two thousand. This is necessarily less satisfactory from the point of view of fertility analysis than a corresponding study of men would be. To attain this degree of fame, a woman would normally be too much occupied with the daily affairs of her career or profession to have as many children as women who concentrate wholly on a domestic life. Thus, the average family size of well under one child per woman revealed by the inquiry is clearly very low. Much of the shortfall is due to non-marriage—about 40 per cent have remained single. Even so, the average family size per married woman is only about 1.25 children—compare over 2.50 recorded in the national census.

It is probably too early to repeat the survey for men made nearly ten years ago. In the meanwhile, it is of some limited interest to note that there is a slight trend towards higher

* Papers of the Institute, No. 2. *A Fertility Simulation Model*.

† See THE EUGENICS REVIEW, 1963, 54, 57.

fertility among successful women over the period 1948–63, especially at the younger ages. It seems doubtful, however, whether this does more than reflect, at a lower level, the changes in the national average during the same period.

“OXFAMPLAN”

SIR JULIAN HUXLEY in September 1964 said that he would like to see Oxfam and the Family Planning Association marching under a common banner entitled *Oxfamplan—against FAMine and for FAMily planning*. He was speaking as Chairman of the session on Aspects of Fertility Control in the Eugenics Society's Symposium on Biological Aspects of Social Problems.

He was pleading for “the integration of all projects and ideas concerned with the proper development of the world as a whole” and his “Oxfamplan” suggestion followed Professor Meade's mention of the Freedom from Hunger Campaign in Cambridge, where undergraduates had for the last two years carried out the policy of collecting money both to support projects of economic developments and to support the Family Planning Association in Hong Kong, in spite of great pressure not to include the FPA in their appeals.

In its *Bulletin* published on 15th February 1965, Oxfam announced that support of family planning services would be included in its programmes of aid to underdeveloped countries:

“The issue of population control has now become so urgent, and the resources of the specialist family planning agencies so inadequate for the demands made upon them, that Oxfam should place family planning alongside the many other ways in which it is seeking to help underprivileged peoples.”

The *Sunday Times* (14.2.65) reported that this resolution was first put before Oxfam's Council two years ago, and rejected. Indeed, it is said that its final acceptance was thanks to one Roman Catholic abstention and the Chairman's casting vote.

The announcement was widely reported and commented on in the daily and weekly press, as were predictions of a huge loss of revenue from donations, and cries of “I quit” by Roman Catholic workers, youth clubs and local groups.

In contrast to the protestations of these zealots—who probably rushed into print before they had heard of or read the discussions in the *Bulletin*—the Roman Church has been remarkably permissive: there was, it was stated, no need for any special pronouncement by the Church since Oxfam had undertaken to respect subscribers' wishes when it was specifically stated that a gift was not to be used for birth control work, just as vegetarians may specify that the money they give must not be used to support animal husbandry. On the other hand, Oxfam has in the past failed to get support from people who believe that efforts to increase food production are like pouring water into a sieve unless there is also some measure of population control. This point of view is underlined by the admission in the 1964 FAO *State of Food and Agriculture** that for the past five years improvement in world agricultural production has barely kept up with the increase in population, and in the worst off countries has often failed to do so.

Oxfam's financial contribution to population control, it is said, will probably amount to about 5 per cent of its annual disbursements. This is a substantial sum of money, once it is distributed where it is most needed. But no doubt it will be a case of *l'appetit vient en mangeant* (to quote Rabelais, perhaps for the first time in these pages).

FAO and WHO have not yet been able to press for family planning in underdeveloped countries. Oxfam has got a foot in the door and may well be able to hold it open far enough to let the other big organizations slip in and bring nearer the time when fully integrated policies of population control, coupled with the maximum utilization of resources, are being implemented in all parts of the world.

SIR JULIAN HUXLEY writes: I was delighted to hear of Oxfam's decision to allocate some of their funds to projects of family planning and population control. Campaigns against hunger and against disease are not only admirable but necessary, but if pursued alone without a correspondingly vigorous campaign against

* Reviewed elsewhere in this issue.

overpopulation, they may well in the long run inflict more suffering on the world's peoples. If we do not balance Hunger Control and Death Control with Birth Control, larger multitudes of later generations will suffer even greater misery, hunger, and premature death than the world's peoples now have to bear.

ROMAN CATHOLICS AND CONTRACEPTION

MR. C. W. USHER *writes*: One aspect of the present controversy seems to have escaped notice. Moreover it is an aspect which raises an interesting question.

In the manner that the Roman Catholic Church has handled her major issues over the centuries she has earned a reputation for far-sighted diplomacy. Her discretion has prompted respect—if not always admiration—and, if anything, she has erred on the side of too much discretion rather than too little. An example of this was her failure to condemn out of hand the Nazi treatment of Jews.

But in the matter of contraception and population control she seems to have abandoned her traditional caution and too firmly come down on the side of prohibition of all appliance methods. This is all the more strange when it is borne in mind that she has, ready to hand, all the machinery needed for keeping such private matters away from the public eye. Surely it would have been more discreet for her to have said "This is a personal and indeed highly confidential subject. It is the concern of the priest and the individual parents alone, with the added safeguard of the confessional. It is not a matter for the Press and street-corner discussion". In this manner the way would have been open for the priest to take the place of the Marriage Guidance Counsellor and the inquirer would then be referred confidentially and with complete decorum to the clinic or the family doctor.

The abandonment of the Church's traditional discretion raises the question as to whether she has lost some of her former ability to assess and accurately interpret the contemporary scene. Undoubtedly the categorical condemnation of appliance methods will prove—and is in fact

proving—to be a serious embarrassment and an "agonizing reappraisal" is clearly in progress.

The situation brings to mind the words of Newton—"Seldom discommend any thing though never so bad, or do it but moderately, lest you be unexpectedly forced to an unhandsome retraction".

IMMIGRATION

AS LONG AGO AS April 1962 (54, 1) Sir Richard Pilkington wrote in these pages that, as the centre of a multiracial Commonwealth it would be abhorrent from every point of view to have a colour bar in this country, but that it was only too apparent that in those countries where there was a strongly pronounced alien element, friction not only existed but was getting rapidly worse. Time has shown the truth of his words: "the 'Little Rock' incident in America is, I fear, more of a beginning than an end".

Since then the Commonwealth Immigration Act has been passed, but the facts of immigration and integration are still creating some of our greatest social problems.

As this number of the REVIEW went to press (7th April) the Government published its Race Relations Bill, which a leader writer in *The Times* summarized as "Good Intentions: Bad Law". The issue will no doubt have been widely debated by the time these words are read.

On 23rd March, in the House of Commons, Mr. Thorneycroft initiated a debate on immigration. He said that Britain was going to have "an immigrant population and they must be treated as equal citizens", but he had already said that not many of the immigrant communities "had the slightest intention of integrating with one another or with us." Granted that the immigrants have aggravated rather than created the housing shortage, it is these self-contained "coloured" communities gradually taking over a street or an area and driving out the English owner-residents—usually at a loss owing to the drop in value of their property—that breeds "race prejudice" in the man in the street. We have an example and a warning in the Manhattan pattern: a Negro by some means contrives to rent an apartment, the neighbours move

out and his friends move in and in a short time no self-respecting "white" New Yorker would dream of giving that street as his address. But there the Negro is an American, born and brought up in America, while here the immigrant, whether from India, Pakistan or the West Indies, brings with him a very different way of life—particularly in his ideas of food and hygiene—from that of an English family, and one which the average British housewife will not stomach in her neighbours. And what Mum says, goes. This is an attitude which does not seem to have been discussed by parliamentarians and pundits in their pronouncements on integration. Perhaps it explains Mr. Thorneycroft's puzzlement about the "odd way" in which, though an immigrant student might become a Ph.D., for the workman "to become a foreman on the shop floor was far harder".

The House of Commons had, on this occasion, debated the immigration question on national rather than on party lines, but Mr. George Brown, speaking to delegates at a Labour party local government conference at Sheffield the following weekend, said that it was "absolutely mad" to talk about limiting immigration at a time when Britain needed an expanding labour force: "This country needs new people coming in to share in the work as much as we ever needed it." But in the same speech he spoke of another "Jamaican family" to be housed. (And "housed" might be used as a collective word to cover education, the NHS—including labour in another sense of the word—family allowances and other benefits of the welfare state).

That immigrants should be allowed to send for their wives and young children cannot, on humanitarian grounds, be disputed by anyone. Indeed, the absence of wives may cause acute sociological problems—but the balance of the economic advantage of immigrant manpower in industry is thereby sabotaged.

PROFESSOR P. SARGANT FLORENCE *writes*: The balance of economic advantage from immigration is largely a matter of the length of run we are considering.

The many migrants into Great Britain during the last decade, whatever their colour and whether from the British Commonwealth or

Eire, have until recently been chiefly adult men. In this *short* run immigration has thus added to the proportion of workers in the total population and has presumably increased the national product per head of population. Moreover recent immigrants are mobile and instead of being more or less tied to their home towns, have concentrated where labour was short and they were needed.

In the *middle* run, when wives and children of the male workers are now being let in, but more male workers only if they have already secured a job, the advantage of the high proportion of workers to economic passengers is diminishing. Indeed, if families of immigrants are relatively large, advantages must soon turn to disadvantages* while the children are dependent and the mothers unable to go out to work.

In the *long* run the balance of advantage to the national product per head must depend on the quantities and qualities involved. Unrestricted immigration, particularly from countries such as Pakistan with a population soon to double ours, and India with a population already seven times ours, would certainly create a glut of labour and would lower workers' standards of living and working. As to quality, immigrants are on the whole the more enterprising of their countrymen and might well raise the general tempo of work. But they are unskilled, and what the country needs are skilled craftsmen and mechanics.

HUMAN REPRODUCTION

A WHO SCIENTIFIC GROUP met in Geneva in April 1963 to advise the Director General on the present state of knowledge of the biology of human reproduction and on steps which WHO might take to promote knowledge and interest in this field. Professor A. S. Parkes acted as Consultant to WHO in the appointment of this Group and attended the meeting in that capacity under the Chairmanship of Professor G. W. Harris.

Six days of discussion are concentrated into

* See my *Public Cost of Large Families*. 1964 Occasional Paper, Economic Research Council.

a thirty-page Report* culminating in a list of recommendations. Obviously some of the aspects of reproduction were of necessity excluded from the discussions; topics such as the relation between nutrition and reproduction, and the genetical and cytogenetical aspects of reproduction, could make WHO Special Studies on their own.

Much of our knowledge of the biology of human reproduction is based on observation and experiment in some dozen species of laboratory and domestic animals out of the thousands of species of mammals in the world; in particular too little is known of the reproductive processes of the so-called "higher" animals. Knowledge of geographic and ethnic variation, and of secular trends in human reproductive processes is inadequate: more information is needed about different people in different parts of the world as to the age of onset of puberty and menopause and other factors relating to conception and gestation. Reproduction has many aspects—neurological, biochemical immunological, pharmacological, morphological—and they all need further research: the second three months of pregnancy are relatively unstudied; and much remains to be discovered about the biology of the gametes. The Report draws attention to these and similar problems and indicates lines of research that might help to solve them. It ends with two basic recommendations:

(a) that WHO assist in the development of fundamental knowledge of the biology of human reproduction and of other fields in which that knowledge is based.

(b) that WHO convene meetings of appropriate groups to survey specialized aspects of the subject.

In accordance with one of the recommendations made in the Report, Professor Parkes has been commissioned to review the literature and write a monograph on *Environmental, ethnic and secular variation in normal human reproductive function*. By permission of the Society's Council, this work, which is being supported by a substantial grant from WHO, is based in the Eugenics Society's offices and abstracting and secretarial assistance is being provided by the Society's staff. The project started on 1st May and is expected to take about eighteen months to the typescript stage. The subject matter includes variation in age and manifestations of puberty; onset of biological fertility; length and characteristics of the menstrual cycle and its phases; frequency and characteristics of coitus; conception rate; length and features of pregnancy, parturition and lactation; multiple births; sex ratio; age and characteristics of menopause; and various specialized aspects of male fertility. The literature is widely scattered in biological, medical, anthropological, ethnological, ethological and sociological publications and Professor Parkes would be most grateful for relevant information and references which should be sent to him at the Eugenics Society's Office.

* WHO. *Biology of Human Reproduction: Report of a WHO Scientific Group*. Technical Report Series No. 280. 1964. Pp. 30. Price 1s. 9d. Obtainable through HMSO.